Electric Vehicle Conversion Course

## Energy and Electricity

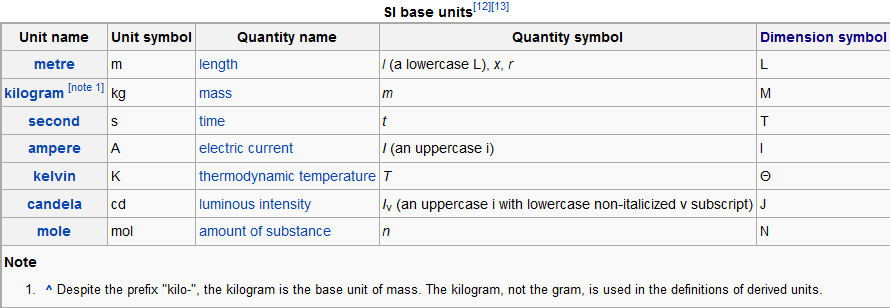
After the ‘Big Bang’ the universe was filled with a conglomeration of sub atomic particles. Over the eons these particles cooled and combined through a process of trial and error experimentation to form what we know of today as matter.

Matter conforms to 4 universal forces:

* Strong atomic binding force
  + Holds the atom together
  + Relates to mass
* Weak atomic binding force
  + Atomic decay and radiation
  + Essential for the process of converting hydrogen into helium in stars.
  + Heat and light
* Gravity
  + Exists as a weak binding force between all matter
  + The greater the mass the greater the gravitational attraction
* Electromagnetism
  + Contributes to the binding of molecules
  + Electricity and magnetism are interdependent (as well as heat)
    - Magnetism converts motion into electricity
    - Electricity produces a magnetic field
  + Electron flow is the result of an imbalance in electrons and protons discharging through a conductive path
  + Magnetism is the result of electrons a substance aligning and combining their magnetic field
  + Heat and light

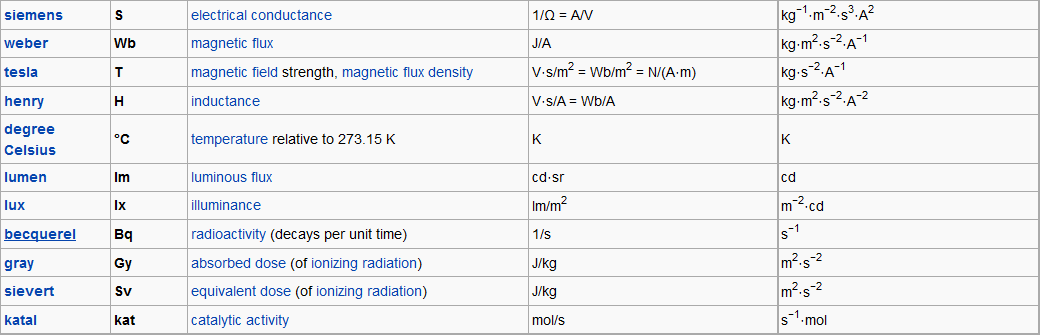
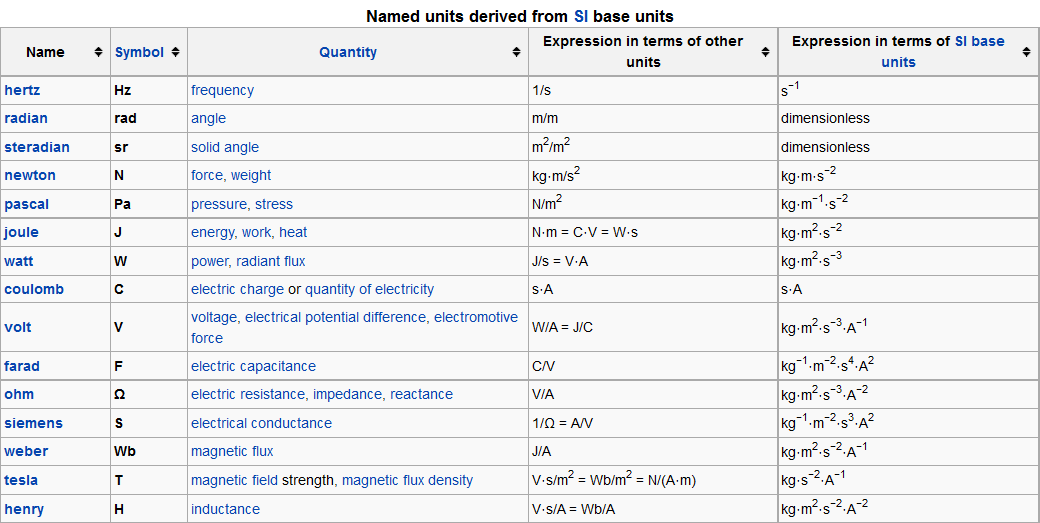
# International System of Units

The most widely adopted system of measure is the International Systems of Units (abbreviated S.I.) of Metric system. It is based on the number 10 and provides a universal understanding of length, mass, time, electric current, temperature, light and the amount of a substance.



<http://en.wikipedia.org/wiki/International_System_of_Units>

Very large or very small quantities of each of S.I. units are expressed by prefixes. These prefixes relate to multiples and divisions of 103.

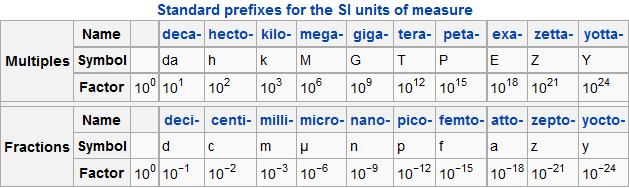


<http://en.wikipedia.org/wiki/International_System_of_Units>

<http://en.wikipedia.org/wiki/International_System_of_Units>

Very large or very small quantities of each of S.I. units are expressed by prefixes. These prefixes relate to multiples or fractions of 103.



<http://en.wikipedia.org/wiki/International_System_of_Units>

Electricity